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EXAMINER
BARON, HENRY

ART UNIT	PAPER NUMBER
2462	

NOTIFICATION DATE	DELIVERY MODE
11/24/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	**Applicant(s)**
Office Action Summary	10/766,842	ABOU-CHAKRA ET AL.
	Examiner	**Art Unit**	
	HENRY BARON	2462	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>10 September 2010</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-13,15 and 16</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-13,15-16</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)   **Office Action Summary**   Part of Paper No./Mail Date 20101111

Detailed Action

AUDIO AND VIDEO DATA PROCESSING DEVICE FOR MULTIMEDIA COMMUNICATION VIA A LOCAL NETWORK SET UP WITHIN AN ASYNCHRONOUS NETWORK

Response to Arguments/Remarks

1.   Claims 1 – 13 and 15 – 16 are pending in the application. Claims 1 – 2 and 16 are amended

2.   Applicant arguments of 09/10/2010 after the final action have been fully considered and were not persuasive.

- ## Double Patenting

3.   Applicant argues that the Examiner rejected claim 1 on the ground of non-statutory obviousness-type double patenting as allegedly being unpatentable over claims 1 and 4 of U.S. Patent No. 7,483,523, but since claim 1 of the instant application has not yet been indicated as allowable, it is believed that any submission of a Terminal Disclaimer or arguments as to the non-obvious nature of the claims would be premature. Applicant request that the Examiner hold this rejection in abeyance, and allow Applicant to address any remaining non-statutory double patenting issues once the rejection of the claims under 35 U.S.C. § 103 are resolved.

4.   The Examiner argues that the issue of allowance and double patenting are separate and therefore maintains the rejection.

5.   The Examiner will not hold this rejection in abeyance.

- ## Claim Rejections - 35 USC § 112

6.　　　Applicant does not agree with the 112 rejection. Applicant argues that Section 2172.01 of the

MPEP cites In re Mayhew, that "[a] claim which omits matter disclosed to be essential to the invention as

described in the specification or in other statements or in other statements of record may be rejected under

35 U.S.C. § 112, first paragraph, as not enabling.", but the Examiner does not indicate where in the

specification specific structures are disclosed as being essential to the invention. Further Applicant argues

that independent claim 1 recited "connection means for the setting up of..." and therefore, the connection

means clearly uses the term "means for".

7.　　　For clarity, in making the 112 rejection, Examiner was referring to the limitation '.. a video link

between these connection means and the video terminal of the first pair,..'', etc. Examiner finds the

"connection means for the setting up of..." self-referential e.g. '..a video link between these connection

means..' etc.

8.　　　The Examiner maintains the 112 rejection.

- ## *Claim Rejections - 35 USC § 103*

9.　　　Applicant argues that the present invention synchronizes the audio data and the video data by

determining a transmission time difference between the audio and video data, and making up the time

difference by delaying transmission of the audio data to the receiving audio communication terminal.

Further Applicant argues that when the video data and audio data are transmitted to a receiving terminal,

the video data is transmitted immediately (that is, without delay) to a transmission link, while the related

audio data is stored in a buffer for a time equal to a calculated delay, and is then transmitted to the

receiving terminal.

10.　　Applicant then argues that none of the prior art references teach this limitation. In particular,

Applicant argues that Davies appears to teach that both audio and video are delayed (see column 14, lines

32- 37 and column 15, lines 48-50 of Davies) which is clearly differs from the claimed feature where the

video packets are transmitted without delay, and the audio packets are delayed for a predetermined time period

11.   Examiner replies that Davies teaches where the connection means synchronizes audio and video data according to a delay. The delays between video and audio are relative, and the section cited by the Applicant is when these signals are encoded. Further, Davies teaches in column 13, row 30 read   The delay added to any signal due to buffering a signal on receive 403 and transmit 408 will be predetermined during development of the gateway so that if the video signal is sent directly without passing through the gateway, the audio signal's delay can be adjusted accordingly (i.e. by subtracting the delay 408) to maintain overall synchronization i.e. ..and wherein the video packets are transmitted without delay, and the audio packets are delayed for a predetermined time period.

12.   .

Double Patenting

13.   A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

14.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

from the reference claim(s) because the examined application claim is either anticipated by, or would

have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226

(Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d

887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In

re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ

644 (CCPA 1969).

15.   A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used

to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided

the conflicting application or patent either is shown to be commonly owned with this application, or

claims an invention made as a result of activities undertaken within the scope of a joint research

agreement.

16.   Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer.

A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17.   Application claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting

as being unpatentable over claims 1 and 4 of U.S. Patent No. 7483523, hereafter '523. Although the

conflicting claims are not identical, they are not patentably distinct from each other because application

claim 1 is broader.

18.   With regards to application claim 1, '523 teaches of an Audio and video data processing device

for multimedia communication, via an asynchronous network with random transmission times, between a

first pair consisting of a first audio communication terminal and a first video communication terminal, a

second pair consisting of a second audio communication terminal and a second video communication

terminal, the said terminals being of the LAN type, where at least the first pair consists of independent

and asynchronous terminals, and the processing device includes, in association with this first pair,

connection means for the setting up of: ('523 claim 1 A management apparatus for managing multimedia

calls set up at least via one of an asynchronous network or a traditional telephone network between a first video communications terminal associated with a first audio communications terminal and a second video communications terminal associated with a second audio communications terminal, comprising: management means for receiving a request to set up a telephone link between said first and second audio communications terminals via said traditional telephone network when the first and second video communications terminals request to set up a multimedia link to transmit at least video data via the asynchronous network.) a video link between these connection means and the video terminal of the first pair, ('523 Claim 4 read ..... The apparatus according to claim 1, wherein said management means is arranged, on receiving the request to set up the telephone link between said first and second audio communications terminals: to order said link means to set up the telephone link between said first and second audio communications terminals to exchange audio data; and to apply to said audio data exchanged via said telephone link a transmission delay to compensate at least in part for a difference in transmission duration between said audio data exchanged via said telephone link, and the video data exchanged between said first and second video communications terminals via the multimedia link set up via said asynchronous network..)

19.   Broader application claim 1 cites an audio and video data processing device for multimedia communication but omits the '523 claim 1 citation of one of an asynchronous network or a traditional telephone network.

20.   It would have been obvious at the time the invention was made by a person of to having ordinary skill in the art to modify the application claim 1 to include one of an asynchronous network or a traditional telephone network.

21.   In this manner, the system could be used in an asynchronous network or a traditional telephone network.

Claim Rejections - 35 USC § 112

22.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

23.   The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the
applicant regards as his invention.

24.   Claims 1 – 13 and 15 – 16 rejected under 35 U.S.C. 112, second paragraph, as being incomplete

for omitting essential structural cooperative relationships of elements, such omission amounting to a gap

between the necessary structural connections. See MPEP § 2172.01.

25.   The omitted structural cooperative relationships are: Claim 1 cites 'a video link between these

connection means'. The Examiner interprets this limitation to claim means-plus-function as in 112, sixth

paragraph. However 'connection means' does not use the term 'means for' e.g. a video link between these

connection means, an audio link between these connection means etc., See MPEP 2181 (A) first of three

prong analysis.

26.   In a similar manner, claim 2 cites 'said connection means'. Claim 2 also cites 'their own

processing means', where 'their own' is indefinite.

27.   Claims 1 – 13 and 15 – 16 are rejected as they use 'connection means' (claims 1 -- 10) or they are

directly or indirectly dependent on claim 1.

Claim Rejections - 35 USC § 103

28.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

         a.   A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of
         this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a
         whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject
         matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

29.   Claims 1 – 7, 10 and 15 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Danneels et al (U.S. Patent 5663951), hereafter Danneels, in view of Davies (U.S. Patent 7043749).

30.   In consideration of claim 1, Danneels teaches of an audio and video data processing device for

multimedia communication across an asynchronous network. (Fig 1; Figure Element (FE) 100, FE 110)

between a first pair of audio communication terminal (FE 104 and 108) and video communication

terminal (FE 102 and 106) and a like second pair (FE 100; Conferencing System B) where the terminals

are LAN type (4: [0050+]) with connection means for setting up video and audio link of the two pairs

(Figure 1; read analog video and audio, Conferencing System A and B) and video and audio links

between the two pairs (FE 110 and 4: [0050-0063] Each conferencing system 100 receives, digitizes, and

compresses the analog video signals generated by camera 102 and the analog audio signals generated by

microphone 104. The compressed digital video and audio signals are transmitted to the other

conferencing system via network 110, where they are decompressed and converted for play on monitor

106 and speaker 108, respectively. In addition, each conferencing system 100 may generate and transmit

data signals to the other conferencing system 100 for play on monitor 106. The video and data signals are

displayed in different windows on monitor 106. Each conferencing system 100 may also display the

locally generated video signals in a separate window). The nature of audio and video signals are typically

asynchronous, i.e. not synchronous as demonstrated in speech and images, thus the audio and video

terminals are asynchronous and wherein the connection means synchronizes audio and video data

according to a delay. (2:[0014] read [a] first subset of the data packets i.e. audio packets, is transmitted

from the local node to a remote node, and then a subsequent subset of the data packets i.e. video packets,

is transmitted from the local node to the remote node after a delay to avoid overloading the remote node

with data packets)

31.   However Danneels does not explicitly teach of an asynchronous network with random

transmission times.

32.   By contrast, Ishibashi teaches of a digital network to support multimedia communications that

preserves the temporal relation among media stream (Section 1, paragraph 1.). Further, Ishibashi teaches

random transmission times where he contrasts his paper to previous work in the field citing that ".. the network delay bounds are not always known." (Section 1, paragraph 4.).

33.   It would have been obvious at the time the invention was made to a person of ordinary skill in the art to modify the teaching of Danneels with the random transmission times teachings of Ishibashi to form a network of asynchronous audio and video media streams with random transmission times. This would be advantageous since a network synchronization mechanism based on media streams with random transmission times are more realistic in modeling the way packets (or media units) are transported across networks.

34.   Danneels and Ishibashi do not disclose where the connection means synchronizes audio and video data according to a delay.

35.   Davies teaches where the connection means synchronizes audio and video data according to a delay. (15: [0037] read ..... In Step 3 (FIG. 9), synchronized audio and video are sent to the integrated terminal. The delay the audio and video signals takes to arrive and be decoded by the integrated terminal is time t.sub.a 903 and time t.sub.b 904 respectively. As the terminal plays out synchronized audio and video time t.sub.b 904 is effectively the same as t.sub.a 903 (within 10.+-.30 ms). At some point the audio will contain a marker signal that is looped back 930 to the separate audio device to return it to the gateway. The gateway times the audio signal marker between its dispatch and receipt, say time t.sub.3 901. For the purposes of this measurement it can be assumed that t.sub.x 902 is identical to t.sub.x 702 and 802 and the loop back time of the audio signal is zero)

36.   Further, Davies teaches in column 13, row 30 read   The delay added to any signal due to buffering a signal on receive 403 and transmit 408 will be predetermined during development of the gateway so that if the video signal is sent directly without passing through the gateway, the audio signal's delay can be adjusted accordingly (i.e. by subtracting the delay 408) to maintain overall synchronization

i.e. ..and wherein the video packets are transmitted without delay, and the audio packets are delayed for a
predetermined time period.

37.   It would have been obvious at the time the invention was made to a person of ordinary skill in the
art to modify the teaching of Danneels with the random transmission times teachings of Ishibashi and the
delay management teachings of Davies to form a network of asynchronous audio and video media
streams with random transmission times. This would be advantageous since a network synchronization
mechanism based on media streams with random transmission times are more realistic in modeling the
way packets (or media units) are transported across networks.

38.   In regards to claim 16, Danneels modified teaches the device according to claim 1, wherein the
video data is transmitted from one of the first video communication terminal and the second video
communication terminal to a receiving terminal one of the first video communication terminal and the
second video communication terminal without delay, and the audio data is delayed by a predetermined
time before being transmitted to a receiving audio communication terminal as the delays between the
video and audio streams are relative.

39.   With regards to claim 2, Danneels does not teach the device according to claim 1 with first dating
means arranged to attach a transmit time mark and an identifier to audio and video data; coming from the
first audio and video communication terminal before their transmission to the second pair via the said
local network and to attach a receive time mark to the audio and video data coming from the second pair
and containing an identifier and a transmit time mark, and their own processing means to determine a
time difference representing the transmission time difference between the received audio and video data
and presenting the same identifier from their respective transmit and receive time marks to delay by a
value representing the time difference the transmission of the received audio data at the first audio
communication terminal in relation to the transmission of the received video data at the first video

communication terminal. Thus, Danneels does not teach connection means synchronizes audio and video data according to a delay.

40.   Ishibashi teaches of a device with first dating means that attaches a transmit time mark and an identifier to audio and video (A/V) data before their transmission to the second like A/V terminal pair. (Section 2; Media Synchronization model; read data as media unit; transmit time mark as timestamp; audio and video data as M media streams I – M, Figure 1) across the local network (Figure 1; read high speed network) and attach a receive time mark to the audio and video data from the second pair containing an identifier and a transmit time mark. (Section 2; Media Synchronization model; Figure 1 read destination media stream.). Ishibashi also teaches processing means to determine a time difference representing the transmission time difference between the received audio and video data (Figure 2; read 'i' as audio or video stream 'i'; sigma as difference between timestamps) and presenting the same identifier, i.e. media stream, from their respective transmit and receive time marks i.e. timestamps, and delay by a value representing the transmission time difference of the received audio data at the first audio communication terminal in relation to the transmission of the received video data at the video communication terminal. (Figure 2; also see discussion on page 1011 regarding inter-stream synchronization and master/slave streams; Section 1 Introduction, read delay as adjust output timing).

41.   It would have been obvious at the time the invention was made to a person of ordinary skill in the art to modify the teaching of Danneels with the synchronization teachings of Ishibashi.

42.   This modification would be advantageous as it would permit the video and audio packets received across an asynchronous network to be synchronized and presented to the end user in concert.

43.   With regards to claims 3 – 4, and 15, Danneels does not of a device with processing means arranged to determine a time difference (ET) representing the transmission time difference and a coding and decoding time difference between the received audio and video data, presenting the same identifier and synchronization of audio and video occurs once at the connection means and once at the pair.

44.   Ishibashi teaches of media stream coding and decoding performed in the application layer (Figure

1) that are received at synchronization service access point. Further, Ishibashi teaches of the concept of

inter-stream synchronization between master/slave streams. (Section 4.2, page 1015) i.e. synchronization

of audio and video occurs once at the connection means and once at the pair. Because less processing is

required for audio data, the 'faster' audio stream represents the master stream, the video the slave stream

i.e. identifier. (page 1011). Danneels teaches that audio (6: [0024]) and video coding and decoding as part

of the process to generate multimedia streams.

45.   It would have been obvious at the time the invention was made to a person of ordinary skill in the

art to modify the teaching of Danneels with the synchronization teachings of Ishibashi.

46.   This modification would be advantageous as it would further facilitate the video and audio

packets received across an asynchronous network to be synchronized and presented to the end user in

concert.

47.   With regards to claims 5 and 7, Danneels teaches of audio and video links that are of a

"deterministic" type in Figure 1; i.e. links between FE 102,106 and FE100 video; links between FE

104,108 and FE 100.

48.   In reference to claim 6, Danneels does not teach processing means arranged so as to determine

the time difference from the transmit and receive time markings of the received audio and video data, and

from values representing their respective transmission times between the connection means and the first

audio and video communication terminals for which they are intended.

49.   Ishibashi teaches of media stream coding and decoding performed in the application layer (Figure

1) that are received at a common synchronization service access point (SSAP). Danneels teaches of audio

and video links that are of a "deterministic" type in Figure 1 whose delays can be sent to the SSAP.

Further, Ishibashi teaches that time difference can be derived from time markings i.e. timestamps between

tightly coupled media-streams such as audio and video (Section 4.2.1 and Figure 4). Further, Ishibashi

teaches of the concept of inter-stream synchronization between master/slave streams. Because of relative

shorter period required to process audio data, the audio stream represents the master stream, the video the

slave stream (Page 1011).

50.   It would have been obvious at the time the invention was made to a person of ordinary skill in the

art to modify the teaching of Danneels with the synchronization teachings of Ishibashi.

51.   This modification would be advantageous as it would further facilitate the video and audio

packets received across an asynchronous network to be synchronized and presented to the end user in

concert.

52.   With regard to claim 10, Danneel's Conference System (Figure 1, FE 100) represents a

connection means that provides a proxy type function for audio and video data to the network LAN.

53.   Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danneels et al

(U.S. Patent 5663951), hereafter Danneels in view of Ishibashi et al, A Synchronization Mechanism for

Continuous Media in Multimedia Communication, INFOCOM '95. Fourteenth Annual Joint Conference

of the IEEE Computer and Communications Societies; Bringing Information to People. Proceedings.

IEEE 2-6 April 1995 Page(s): 1010 - 1019 vol.3 hereafter Ishibashi, in view of Davies (U.S. Patent

7043749) and in further view of Little et al, Network and Operating Systems Support for Digital Audio

and Video: Proceedings, 5th International Workshop on Network and Operating Systems Support for

Digital Audio and Video, Springer 1995, hereafter Little.

54.   With respect to claims 8 – 9, Danneels and Ishibashi teach the limitations of claim 2 but are silent

in teaching assignment of priority levels to audio and video data to be transmitted or assigning a lower

priority to video data relative to audio data.

55.   By contrast, Little teaches in the traffic characteristics and flow control that video streams have

lower priority then higher priority audio, i.e. read jitter as characteristic of audio streams. (Page 168 - 169;

Traffic Characteristics and Flow Control section).

56.   It would have been obvious at the time the invention was made to a person of ordinary skill in the art to modify inter-stream synchronization between audio and teachings of Danneels and Ishibashi with the audio visual (A/V) priority teachings of Little.

57.   By transporting audio streams across a network with a higher priority relative to its companion video stream, the random arrival time of A/V packets at the destination port is mitigated and the distribution of both packet classes are more tightly bounded. This is ultimately advantageous in improving the synchronization of the two data streams.

58.   Claims 11 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danneels et al (U.S. Patent 5663951), hereafter Danneels in view of Ishibashi et al, A Synchronization Mechanism for Continuous Media in Multimedia Communication, INFOCOM '95. Fourteenth Annual Joint Conference of the IEEE Computer and Communications Societies. Bringing Information to People. Proceedings. IEEE 2-6 April 1995 Page(s): 1010 - 1019 vol.3 hereafter Ishibashi, in view of Davies (U.S. Patent 7043749) and in further view of Keshab et al, Digital Signal Processing for Multimedia Systems, CRC Press 1999 pg 245 and 274, hereafter Keshab.

59.   With regards to claim 11 – 13 Danneels and Ishibashi teach the limitations of claim 1 but are silent in teaching of processing device for an audio, video, or communication unit.

60.   Keshab teaches, circa 1999, of recent developments of microprocessors and DSP chips that provide audio and video processing capabilities (page 245, 2nd paragraph). Further, Keshab teaches that developments of microprocessors can be also be used in wireless communications (page 274, 3rd paragraph).

61.   It would have been obvious at the time the invention was made to a person of ordinary skill in the art to modify the inter-stream synchronization between audio and teachings of Danneels and Ishibashi incorporating a digital processing device in the video, audio, and communication unit.

62.   Processing audio and video signals with a DSP in the video and audio communication unit

improves the fidelity of A/V data and digital processing of communication signals efficiently utilizes

bandwidth.

FINAL ACTION

63.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office

action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is

reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

64.   A shortened statutory period for reply to this final action is set to expire THREE MONTHS from

the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing

date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX

MONTHS from the date of this final action

Conclusion

65.   Any inquiry concerning this communication or earlier communications from the examiner should

be directed to HENRY BARON whose telephone number is (571)270-1748. The examiner can normally

be reached on 7:30 AM to 5:00 PM E.S.T. Monday to Friday.

66.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

67.   Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer

Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR

CANADA) or 571-272-1000.

/H. B./
Examiner, Art Unit 2462
HB

/Kevin C. Harper/

Primary Examiner, Art Unit 2462